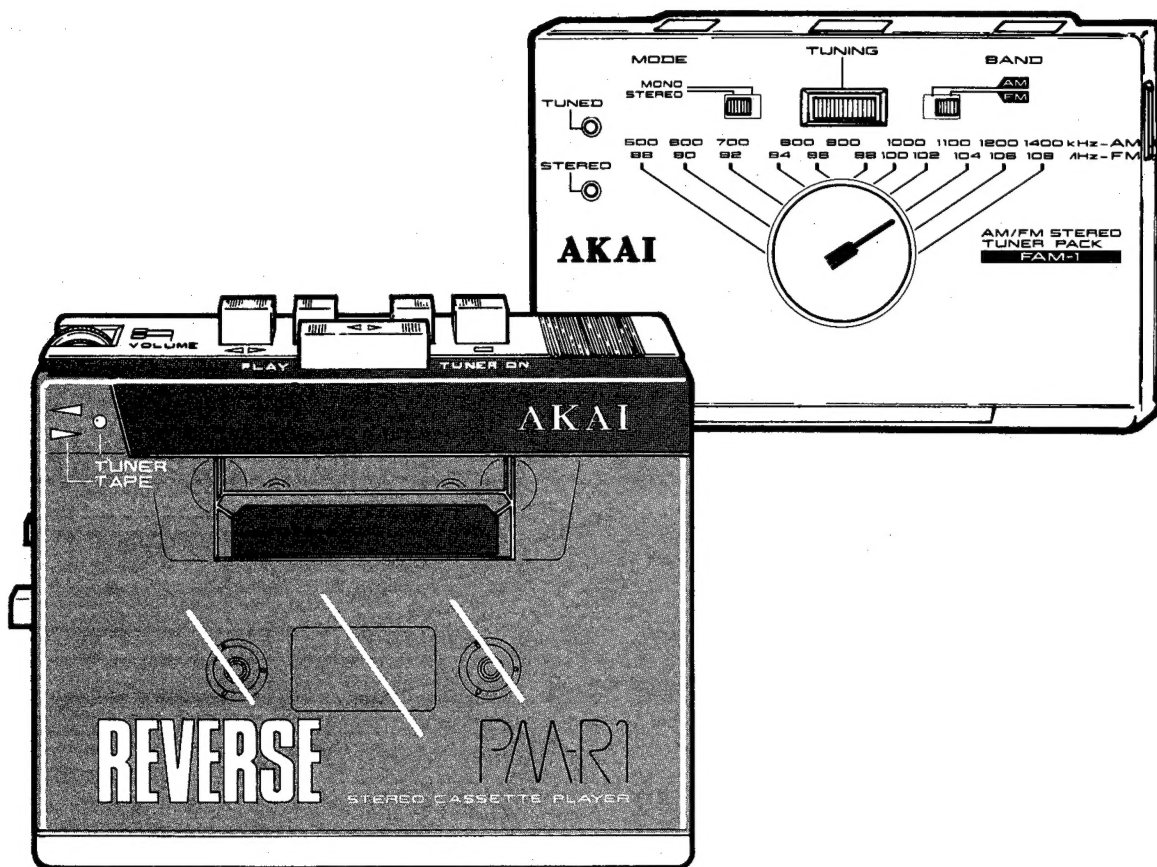


AKAI SERVICE MANUAL



STEREO CASSETTE PLAYER

MODEL **PM-R1**

AM/FM STEREO TUNER PACK

MODEL **FAM-1**

STEREO CASSETTE PLAYER

MODEL PM-R1

AM/FM STEREO TUNER PACK

MODEL FAM-1

SECTION 1	SERVICE MANUAL	3
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SECTION 6	SCHEMATIC DIAGRAM	22

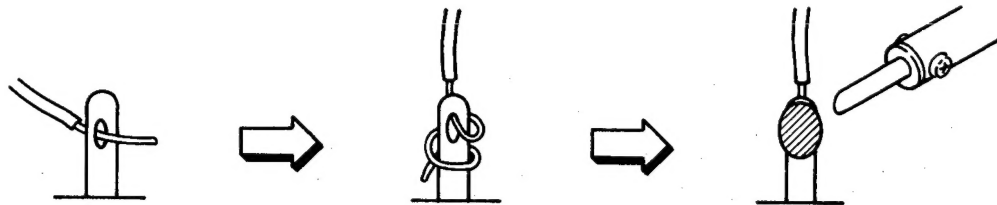
SAFETY INSTRUCTIONS

SAFETY CHECK AFTER SERVICING

Confirm the specified insulation resistance between power cord plug prongs and externally exposed parts of the set is greater than 10 Mohms, but for equipment with external antenna terminals (tuner, receiver, etc.) and is intended for **C** or **A**, specified insulation resistance should be more than 2.2 Mohms (ground terminals, microphone jacks, headphone jacks, line-in-out jacks etc.)

PRECAUTIONS DURING SERVICING

1. Parts identified by the Δ symbol parts are critical for safety.
Replace only with parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation. These must also be replaced only with specified replacements.
Examples: RF converters, tuner units, antenna selector switches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially:
 - 1) Wires covered with PVC tubing
 - 2) Double insulated wires
 - 3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
 - 1) Insulation Tape
 - 2) PVC tubing
 - 3) Spacers (Insulating Barriers)
 - 4) Insulation sheets for transistors
 - 5) Plastic screws for fixing microswitch (especially in turntable)
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.



6. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).
7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

SECTION 1

SERVICE MANUAL

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For basic adjustments, measuring methods, and operating principles, refer to GENERAL TECHNICAL MANUAL.

I. SPECIFICATIONS

CASSETTE PLAYER (PM-R1) SECTION

FREQUENCY RESPONSE	40 to 12,500 Hz (NORMAL) 40 to 14,000 Hz (METAL)
POWER OUTPUT	30mW per channel (at 32 ohms)
WOW AND FLUTTER	Less than 0.2%
S/N	Greater than 50dB (Stereo)
FF/REWIND TIME (C-60)	150 seconds
OUTPUT IMPEDANCE	32 ohms
POWER SOURCE	2AA batteries or optional AC adaptor
BATTERY LIFE	Approx. 8 hours (Alkaline batteries)
DIMENSIONS	111(H) × 83(W) × 33(D) mm [4.3(H) × 3.3(W) × 1.3(D) inches]
WEIGHT (including batteries)	350 g (12.4 oz)

AM/FM STEREO TUNER PACK (FAM-1) SECTION

[AM SECTION]

TUNING RANGE	530 to 1,610 kHz
USABLE SENSITIVITY (600/1,000/1,400 kHz)	53 dB/m
IMAGE REJECTION (1,000 kHz ±2 IF)	33 dB
IF REJECTION at 1,000 kHz	30 dB
SELECTIVITY ±20 kHz	35 dB
S/N at 1,000 kHz	36 dB
DISTORTION (THD) at 1,000 kHz	2.5%
FREQUENCY RESPONSE (1,000 kHz -6 dB)	40 to 2,500 Hz

[FM SECTION]

TUNING RANGE	76 to 108 MHz (JPN Model) 88 to 108 MHz (Other Models)
USABLE SENSITIVITY at 75 ohms, 88/98/106 MHz	17 dBf
DISTORTION (THD) at 98 MHz (mono/stereo)	0.5%/1%
S/N at 98 MHz (mono/stereo)	55/45 dB
SEPARATION	35 dB
IMAGE REJECTION (98 MHz +2 IF)	25 dB
IF REJECTION at 98 MHz	60 dB 75 dB (JPN)
AFC RANGE at 98 MHz	±200 kHz
FREQUENCY RESPONSE (98 MHz +2/-4 dB)	40 to 12,000 Hz

* For improvement purposes, specifications and design are subject to change without notice.

II. CONTROLS

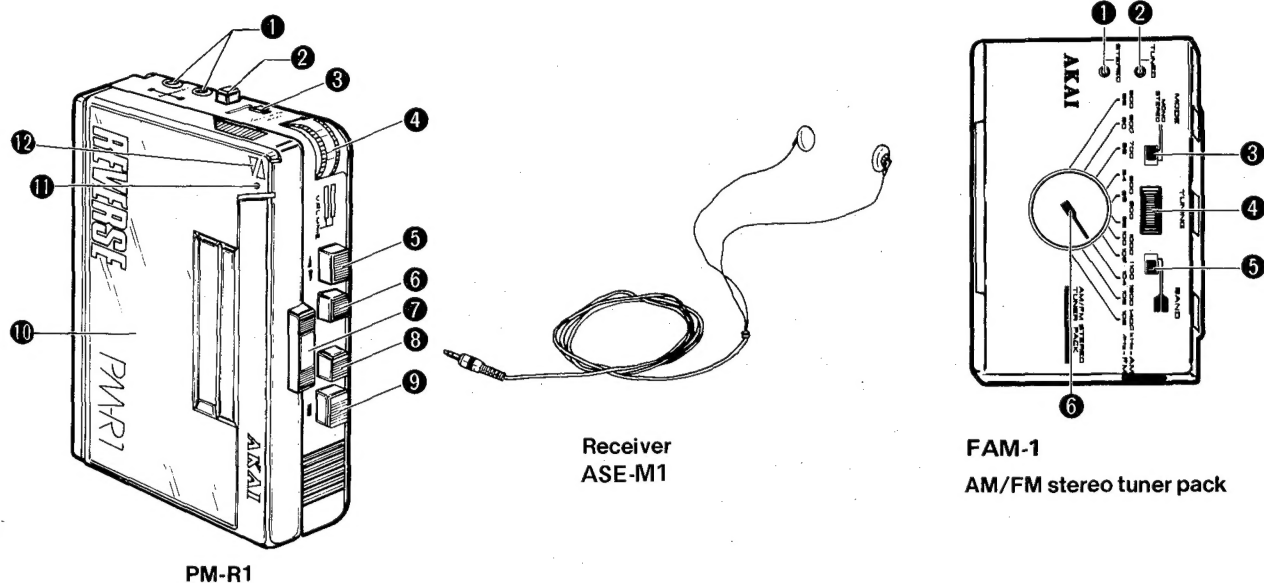


Fig. 2-1

PM-R1

- ① PHONES JACKS (A/B)
- ② MUTE SWITCH
- ③ TAPE SELECTOR (METAL/NORM)
- ④ VOLUME CONTROLS (LEFT/RIGHT)
- ⑤ DIRECTION (◀▶) BUTTON
- ⑥ FF (▶▶) BUTTON
- ⑦ PLAY/TUNER ON BUTTON
- ⑧ RWD (◀◀) BUTTON
- ⑨ STOP/TUNER OFF BUTTON
- ⑩ HOLDER
- ⑪ TUNER INDICATOR
- ⑫ TAPE INDICATORS

FAM-1

- ① STEREO INDICATOR
- ② TUNED INDICATOR
- ③ FM MODE SELECTOR (STEREO/MONO)
- ④ TUNING CONTROL
- ⑤ BAND SELECTOR (AM/FM)
- ⑥ FREQUENCY INDICATOR

III. HEAD AZIMUTH ADJUSTMENT

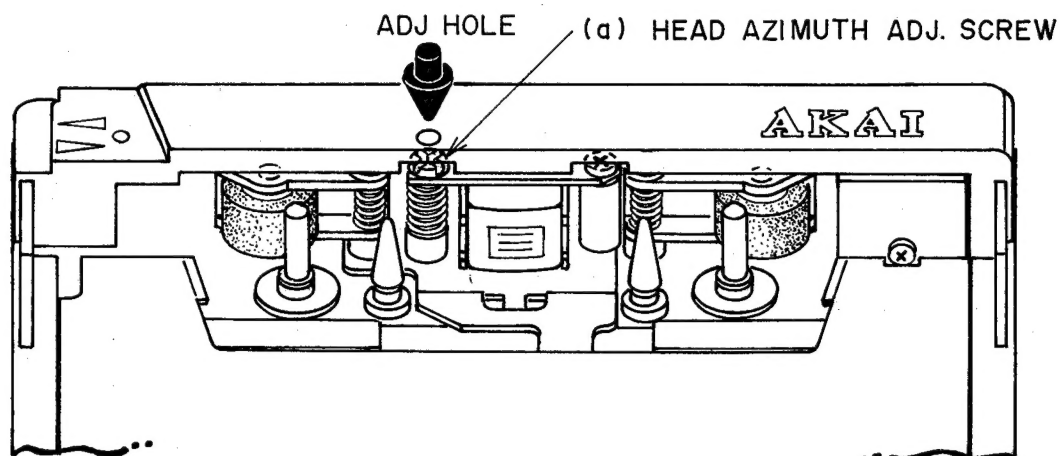


Fig. 3-1

- 1) Playback the azimuth adjustment tape (10 kHz AT-750778) in the FWD PLAY mode and adjust screw (a), until the output level of both channels reaches maximum (the AC voltmeter registers maximum).
- 2) Put in reverse mode and check that the output level is the same as in the forward mode. If different, adjust with screw (a), until the level is the same in both modes.
- 3) After adjustment, paint lock the screw (a).

IV. TAPE SPEED ADJUSTMENT

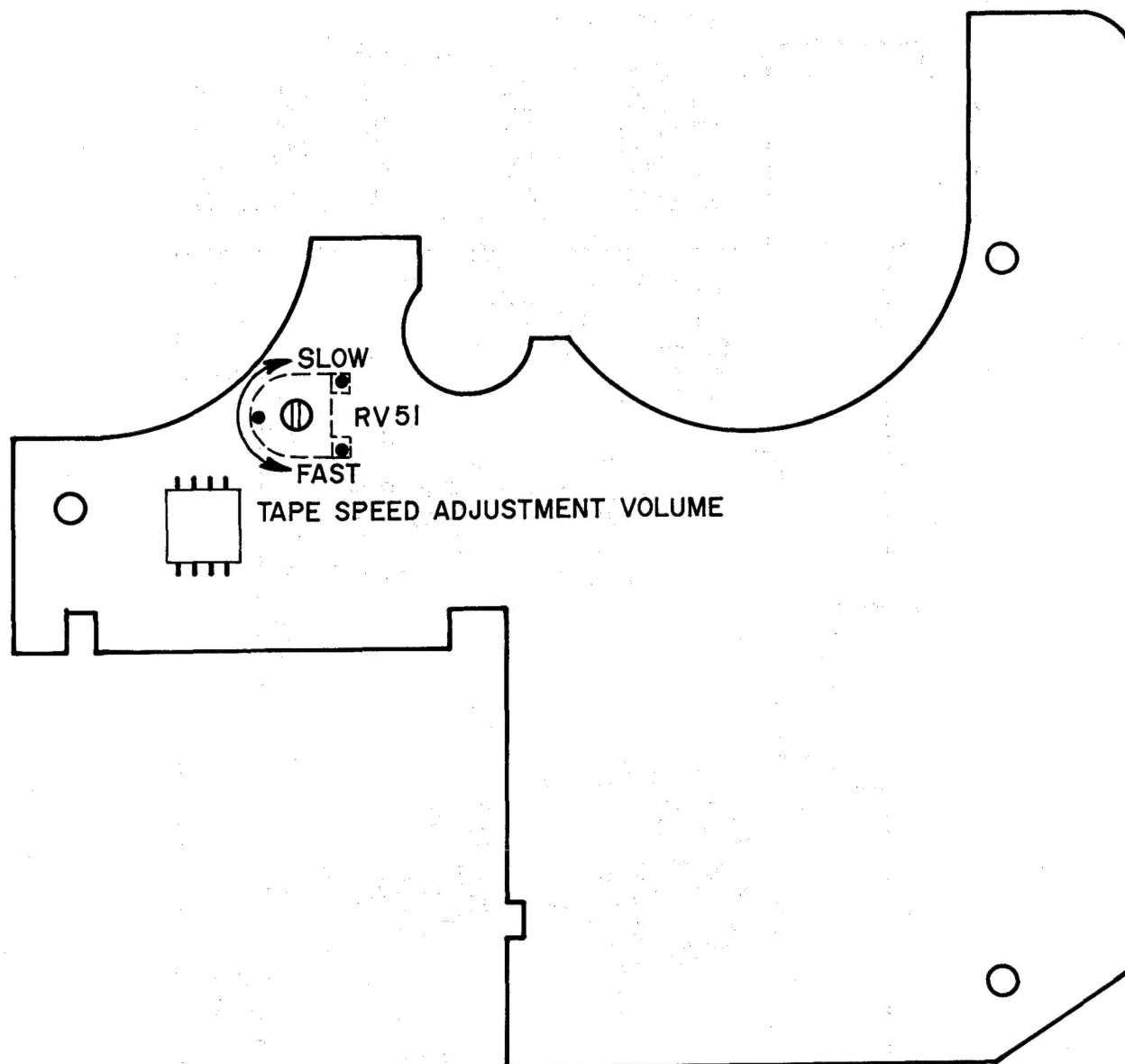


Fig. 4-1

Playback a 1,000 Hz pre-recorded test tape (AT-750774) or 3,150 Hz pre-recorded test tape (AT-751263) and adjust tape speed adjustment volume RV51 to obtain a tape speed of 1,000 Hz $\pm 35/-20$ Hz or 3,150 Hz $\pm 110/-63$ Hz.

V. TUNER (FAM-1) ADJUSTMENT

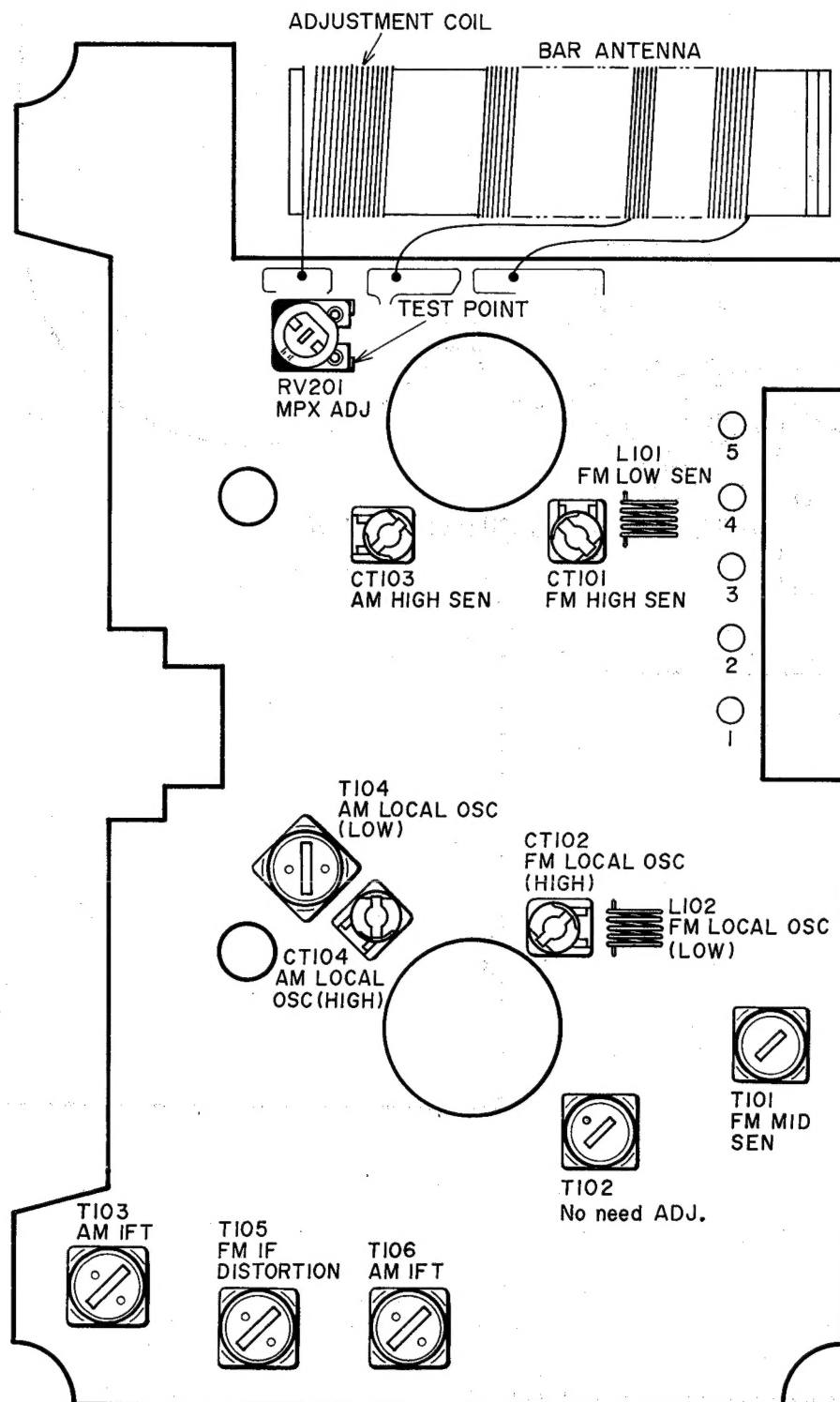


Fig. 5-1 FAM-1 Adjustment Points

5-1 AM SECTION ADJUSTMENT

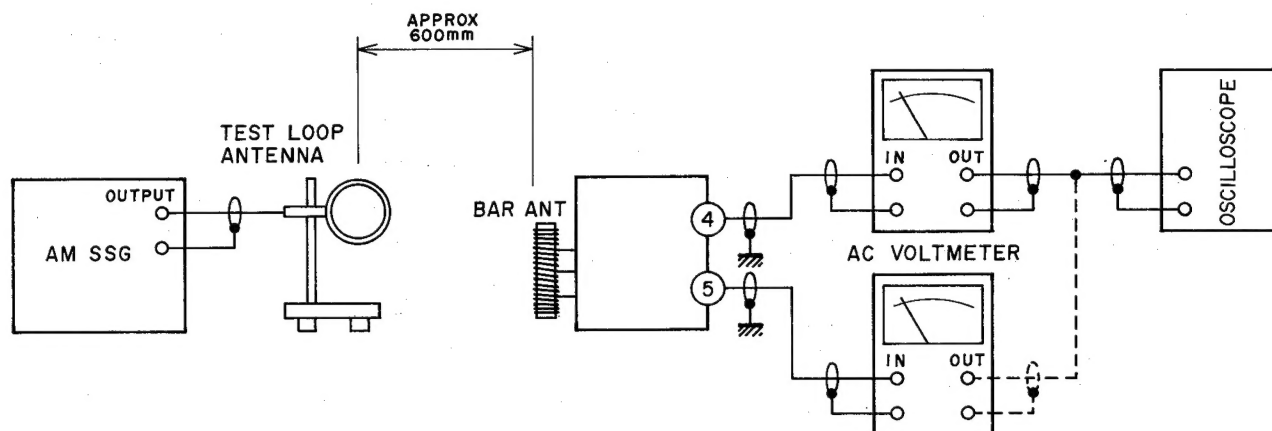


Fig. 5-2 Instrument Connection for AM Section Adjustment

Step	Adjustment Item	Input Signal from S.S.G	Adjustment Point	Result	Remarks
1	AM IF	455 kHz 90 dB	T103 T106	Maximum output level	<ul style="list-style-type: none"> BAND switch to AM Turn the Tuning Dial all the way to the left (Low end)
2	AM Local OSC (Low)	510 kHz	T104	Maximum output level	<ul style="list-style-type: none"> Turn the Tuning Dial all the way to the left (Low end)
3	AM Local OSC (High)	1,650 kHz	CT104	Maximum output level	<ul style="list-style-type: none"> Turn the Tuning Dial all the way to the right (High end)
4	For best Result, Repeat Step 2 and 3, two or three times				
5 (See NOTE 1)	Low Range Sensitivity	600 kHz	Bar antenna coil (See NOTE 2)	Maximum output level	<ul style="list-style-type: none"> Tune to signal.
6	High Range Sensitivity	1,400 kHz	CT103	Maximum output level	<ul style="list-style-type: none"> Tune to signal.
7	For best Result, Repeat Step 5 and 6, two or three times				

NOTE: 1. Adjustment Step 5 is not Required except when a Bar Antenna is Replaced or an adjustable coil is miss adjusted.
 2. Adjust space between small coil and large coil, by moving small coil.
 3. Set the internal modulation signal generator to 30%, 400 Hz and 50 dB of each unless specified.

5-2 FM SECTION ADJUSTMENT

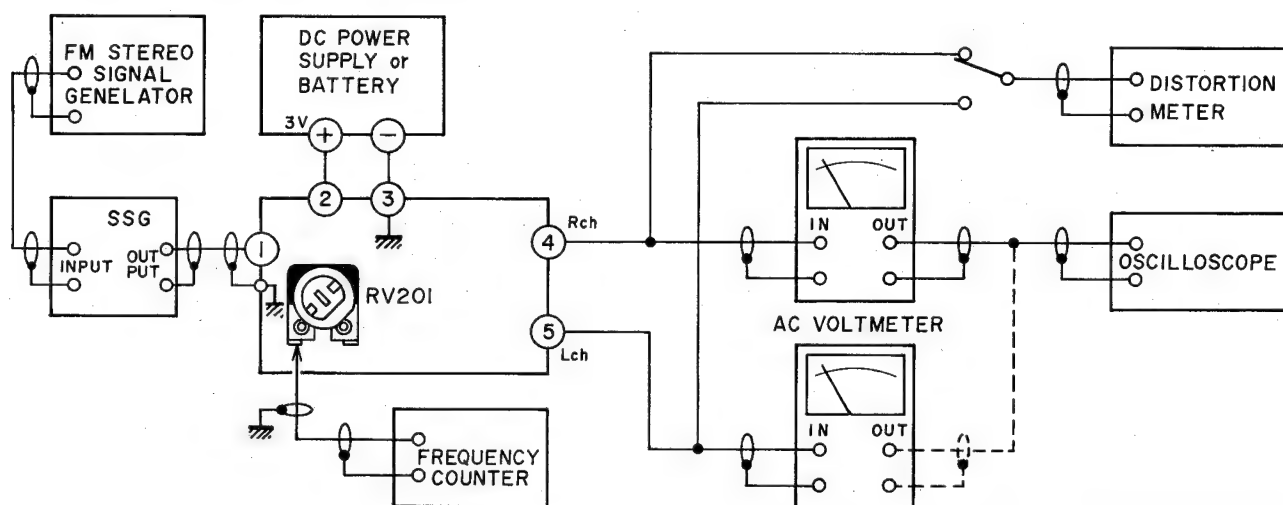


Fig. 5-3 Instruments Connection for FM Section Adjustment

Step	Adjustment Item	Input Signal from S.S.G	Adjustment Point	Result	Remarks
1	FM IF	98.0 (90.0) MHz	T105	Maximum output level Distortion Factor = Less than 0.6%	<ul style="list-style-type: none"> BAND switch to FM. MODE switch to MONO. Tune to signal.
2	FM Local OSC (Low)	87.6 (75.5) MHz	L102	Maximum output level	<ul style="list-style-type: none"> MODE switch to MONO. Turn the Tuning Dial, all the way to the left (Low end)
3	FM Local OSC (High)	108.2 (108.2) MHz	CT102	Maximum output level	<ul style="list-style-type: none"> MODE switch to MONO. Turn the Tuning Dial, all the way to the right (High end)
4	For best Result, Repeat Step 2 and 3, two or three times				
5	Low Range Sensitivity	90.0 (78.0) MHz	L101	Maximum output level	<ul style="list-style-type: none"> MODE switch to MONO. Tune to signal.
6	Mid Range Sensitivity	98.0 (90) MHz	T101	Maximum output level	<ul style="list-style-type: none"> MODE switch to MONO. Tune to signal.
7	High Range Sensitivity	106.0 (106.0) MHz	CT101	Maximum output level	<ul style="list-style-type: none"> MODE switch to MONO. Tune to signal.
8	For best Result, Repeat Step 5, 6 and 7, two or three times				
9	MPX Free Running Frequency	98.0 (90.0) MHz	RV201	76 kHz \pm 400 Hz	<ul style="list-style-type: none"> MODE switch to STEREO. SSG to STEREO. Connect a Frequency counter between TP (Refer to Fig. 5-3) and GND.

- NOTE:**
- The Frequencies Indicated in () is for **J** MODEL.
 - Adjustments in step 2 and step 5 are Not Required except when a parts is Replaced or an Adjustable Coil (L101, L102) is miss-adjusted.
 - Set the internal modulation signal generator to 75 kHz Dev, 1 kHz and 65 dB of each unless specified.

VI. CLASSIFICATION OF VARIOUS P.C BOARDS

6-1 AMP P.C BOARD PSAB013A0Y, LED P.C BOARD PSLD167A0Y, TERMINAL (A) P.C BOARD PSZZ158E0W and FLEXIBLE P.C BOARD

The Parts in indicates ship parts.

- → Jumper Resistor, 000 on PCB.
- → Resistor, 562 means $56 \times 10^2 (5.6K) ohms$.
- → Capacitor, see * Chip Capacitor.
- → Transistor, see * Chip Transistor.

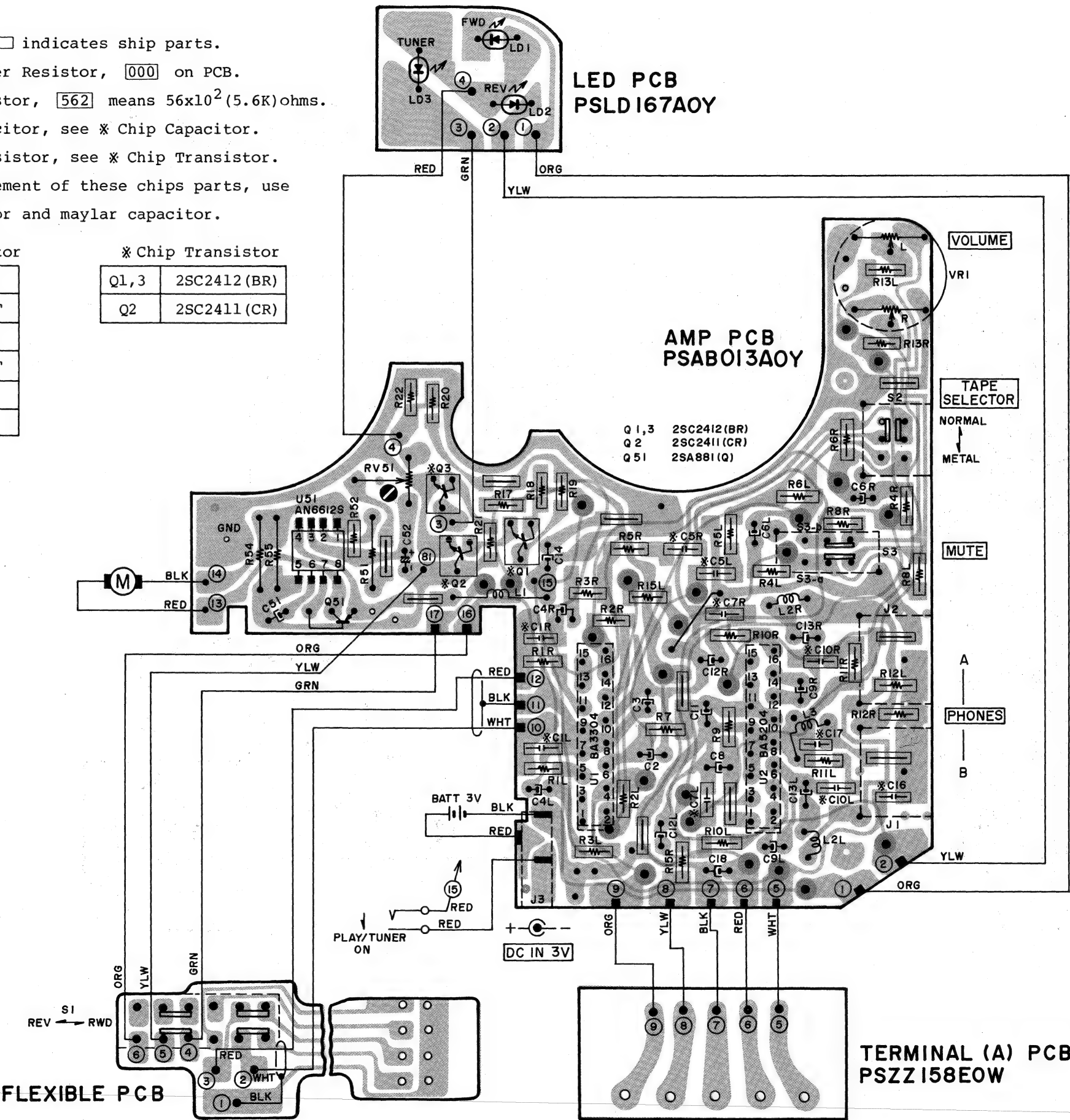
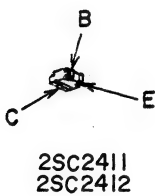
For the replacement of these chips parts, use regular resistor and maylar capacitor.

* Chip Capacitor

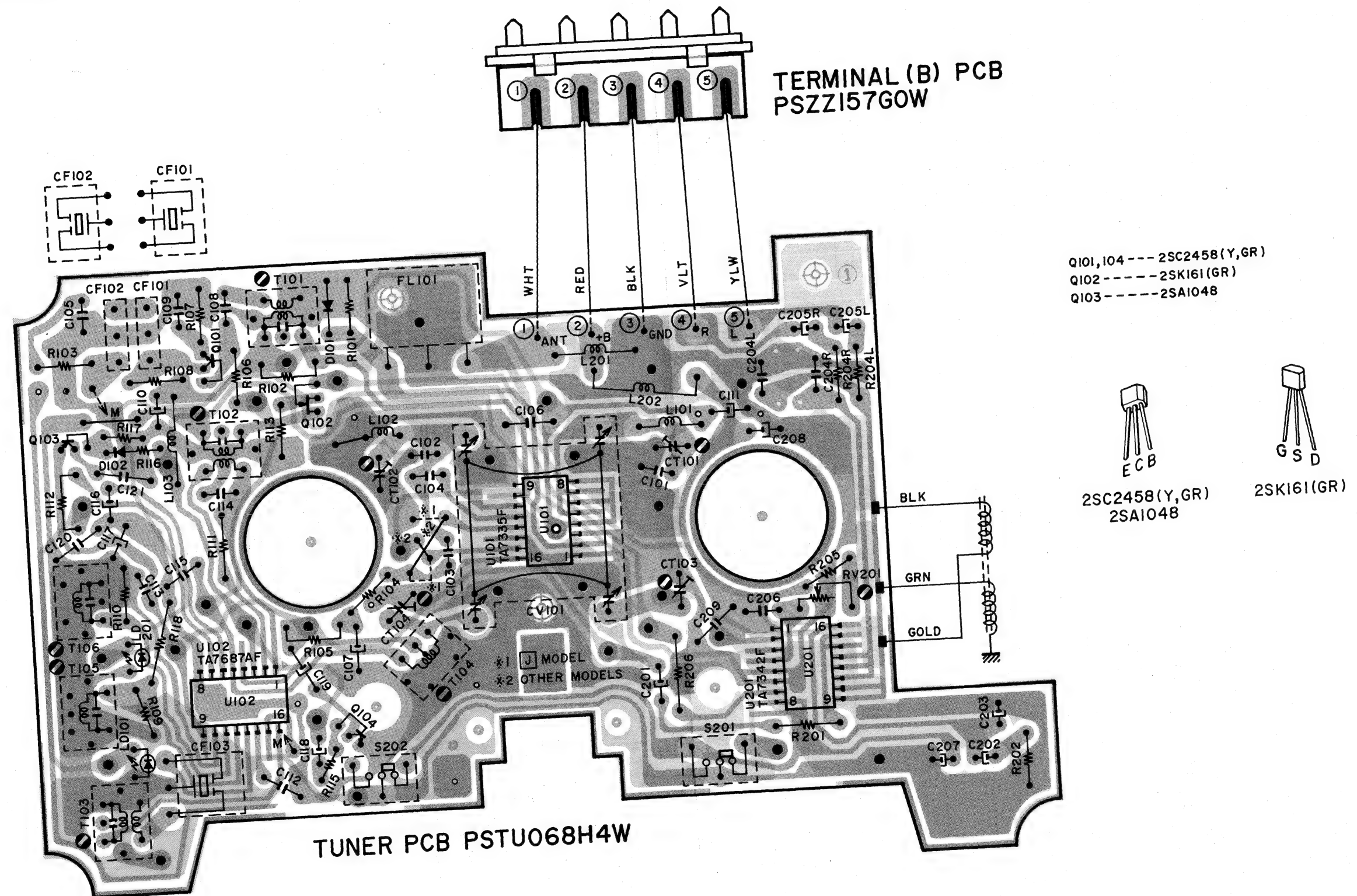
C1	1000PF
C5	0.012μF
C7	150PF
C10	0.022μF
C16	27P
C17	18P

* Chip Transistor

Q1,3	2SC2412 (BR)
Q2	2SC2411 (CR)



6-2 TUNER P.C BOARD PSTU068H4W and TERMINAL (B) P.C BOARD PSZZ157G0W



SECTION 2

PARTS LIST

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2. AMP P.C BOARD BLOCK	18
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4. MODEL FAM-1 FINAL ASSEMBLY BLOCK	20
5. MODEL ASE-M1 ASSEMBLY BLOCK	20
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Resistor and Capacitor which is not listed in this parts list, please refer to COMMON LIST FOR SERVICE PARTS.

ATTENTION

1. When placing an order for parts, be sure to list the parts no., model no., and description. There are instances in which if any of this information is omitted, parts cannot be shipped or the wrong parts will be delivered.
2. Please be careful not to make a mistake in the parts no. If the parts no. is in error, a part different from the one ordered may be delivered.
3. Because parts number and parts unit supply in the Preliminary Parts List may be partially changed, please use this parts list for all future reference.

HOW TO USE THIS PARTS LIST

1. This Parts List shows the parts that are considered necessary for repairs. Other parts, such as resistors and capacitors, are shown in the "Common List for Service Parts". Select and order such parts from the "Common List for Service Parts".
2. The Recommended Spare Parts shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not be supplied in principle.
4. How to read list
 - a) Mechanism Block
 - b) P.C Board Block

2. HEAD BASE BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
2-1x	BH-T2023A320A	HEAD BASE BLOCK GX-F66R
2-2	HP-H2206A010A	HEAD R/P PR4-8FU C
2-3	ZS-477876	PAN20x03STL CMT
2-4	ZS-536488	BID20x08STL CMT
2-5	ZG-402895	CS ANGLE ADJUST SPRING

SP (Service Parts) Classification

A small "x" indicates the inability to show that particular part in the Photo or Illustration.

This number corresponds with the individual parts index number in that figure

This number corresponds with the Figure Number

6. SYS. CON. P.C BOARD BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
6-1	BA-T2034A070A	PC SYS CON BLK GX-F44R
6-IC1	EI-324536	IC HD14049BP
6-IC2	EI-336801	IC MB8841-564M
6-IC3	EI-331661	IC SN7405N
6-IC4	EI-336725	IC M54527P
6-TR1to4	ET-200985	TR 2SC2603 F,G
6-TR5to28	ET-554657	TR 2SA733A P,Q
6-D1	ED-318292	D SILICON H 1S2473T-77 T26
6-D2to4	ED-308952	D GERMA V 1K34A-LR F07
6-D5to10	ED-318292	D SILICON H 1S2473T-77 T26
6-X1	EI-318384	OSC X'TAL NC-18C 3.579545MHZ

SP (Service Parts) Classification

This reference numbers corresponds with symbol numbers of Schematic Diagrams.

5. Both the kind of part and installation position can be determined by the Parts Number. To determine where a parts number is listed, utilize Parts Index at end of Parts List. It is necessary first of all to find the Parts Number. This can be accomplished by using the Reference Number listed at right of parts number in the Parts Index.

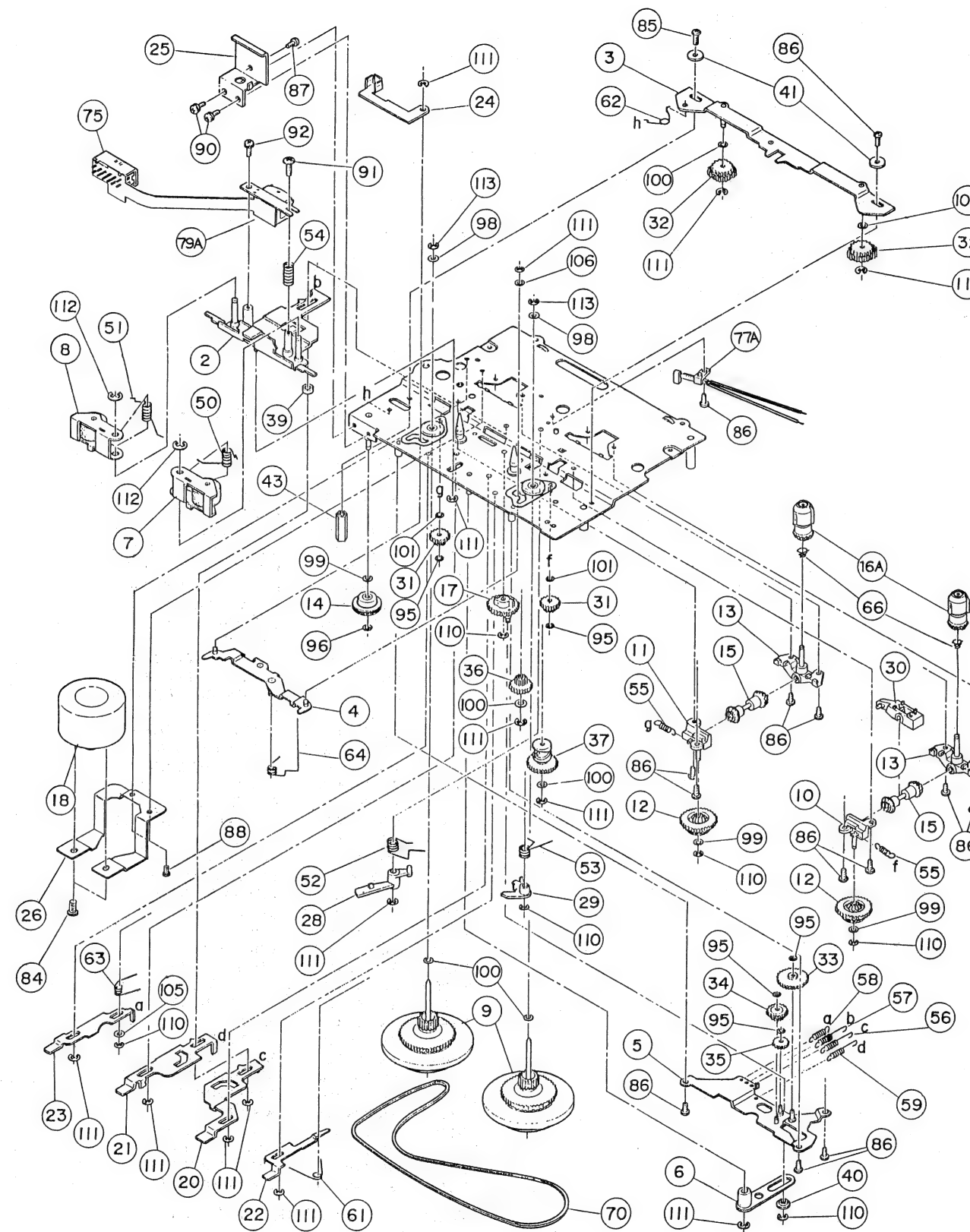
WARNING

⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

AVERTISSEMENT

⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SURETE. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES COMPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT.

MECHA BLOCK



1. MECHA BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
1-1	BB-749505	MECHA BLK PM-R1
1-2	MZ-749356	HEAD SLIDE SHASSIS ASSY
1-7	MP-749357	ROLLER PINCH (F)
1-8	MP-749358	ROLLER PINCH (R)
1-9	MI-749428	FLYWHEEL ASSY
1-12	MZ-749359	FRICTION GEAR ASSY
1-13	MV-749355	SPINDLE BEARING ASSY
1-15	MZ-749360	INTERACT GEAR ASSY
1-16	MZ-749361	REEL SPINDLE ASSY
1-17	MZ-749362	SELECT GEAR ASSY
1-18	BM-749431	MOTOR PM-R1
1-24	ML-749500	LEVER SW
1-31	MZ-749331	GEAR TU
1-32	MZ-749332	GEAR FF
1-33	MZ-749333	GEAR IDLER (A)
1-34	MZ-749334	GEAR IDLER (B)
1-35	MZ-749335	GEAR IDLER (C)
1-36	MZ-749336	GEAR DRIVE
1-37	MZ-749337	GEAR CAM
1-40	MR-749338	ROLLER SELECT
1-50	ZG-749339	SP PINCH ROLLER ARM (F)
1-51	ZG-749340	SP PINCH ROLLER ARM (R)
1-52	ZG-749341	SP GEAR LOCK
1-53	ZG-749342	SP RATCHET
1-54	ZG-749343	SP AZIMUTH
1-55	ZG-749344	SP INTERACT LEVER
1-56	ZG-749345	SP FF LEVER
1-57	ZG-749346	SP HEAD SLIDE
1-58	ZG-749347	SP STOP LEVER
1-59	ZG-749348	SP RWD LEVER
1-61	ZG-749349	SP TORSION PROGRAM LEVER
1-62	ZG-749350	SP TORSION F/R LEVER
1-63	ZG-749351	SP LATCH LEVER
1-64	ZG-749352	SP DASH
1-66	ZG-749353	SP BACK TENSION
1-70	MB-749354	BELT
1-75	ES-749445	SW HEAD SLIDE (S1)
1-77	ES-749447	SW LEAF (S4)
1-79	HP-749446	HEAD P-5144-CM
1-84	ZS-749429	PAN16x02STL NI3
1-85	ZS-343127	PAN17x05STL BNI
1-86	ZS-749363	PAN17x02STL BNI
1-87	ZS-467346	BID20x03STL BNI
1-88	ZS-749340	PAN17x018STL BNI
1-90	ZS-355544	BID20x04STL NI3
1-91	ZS-749501	XST BID20x05STL NI3
1-92	ZS-355544	BID20x04STL NI3
1-95	ZW-749369	PW08x040x025PSL
1-96	ZW-749367	PW12x040x025PSL
1-97	ZW-749368	PW16x040x025PSL
1-98	ZW-305546	PW21x040x025PSL
1-99	ZW-381644	PW21x040x013PSL
1-100	ZW-305546	PW21x040x025PSL
1-101	ZW-749367	PW12x040x025PSL
1-105	ZW-749365	PW15x040x030PBR
1-106	ZW-749366	PW21x040x030PBR
1-110	MT-342044	REEL CLAMP PIN 12 (3R)
1-111	ZW-356657	RING E 150SUP CMT
1-112	ZW-329299	RING E 200SUP CMT
1-113	ZW-749364	E RING 160SUS

- NOTE:** 1. Parts will not be supplied if they are not listed in the Parts list, even if they appear on the assembling illustrations with reference No.
2. When replacing the parts Ref. No. 1-24 or 1-75, replaced 1-24 together with 1-75 if the serial No. of the unit is before 80301-10000.

2. AMP P.C BOARD BLOCK

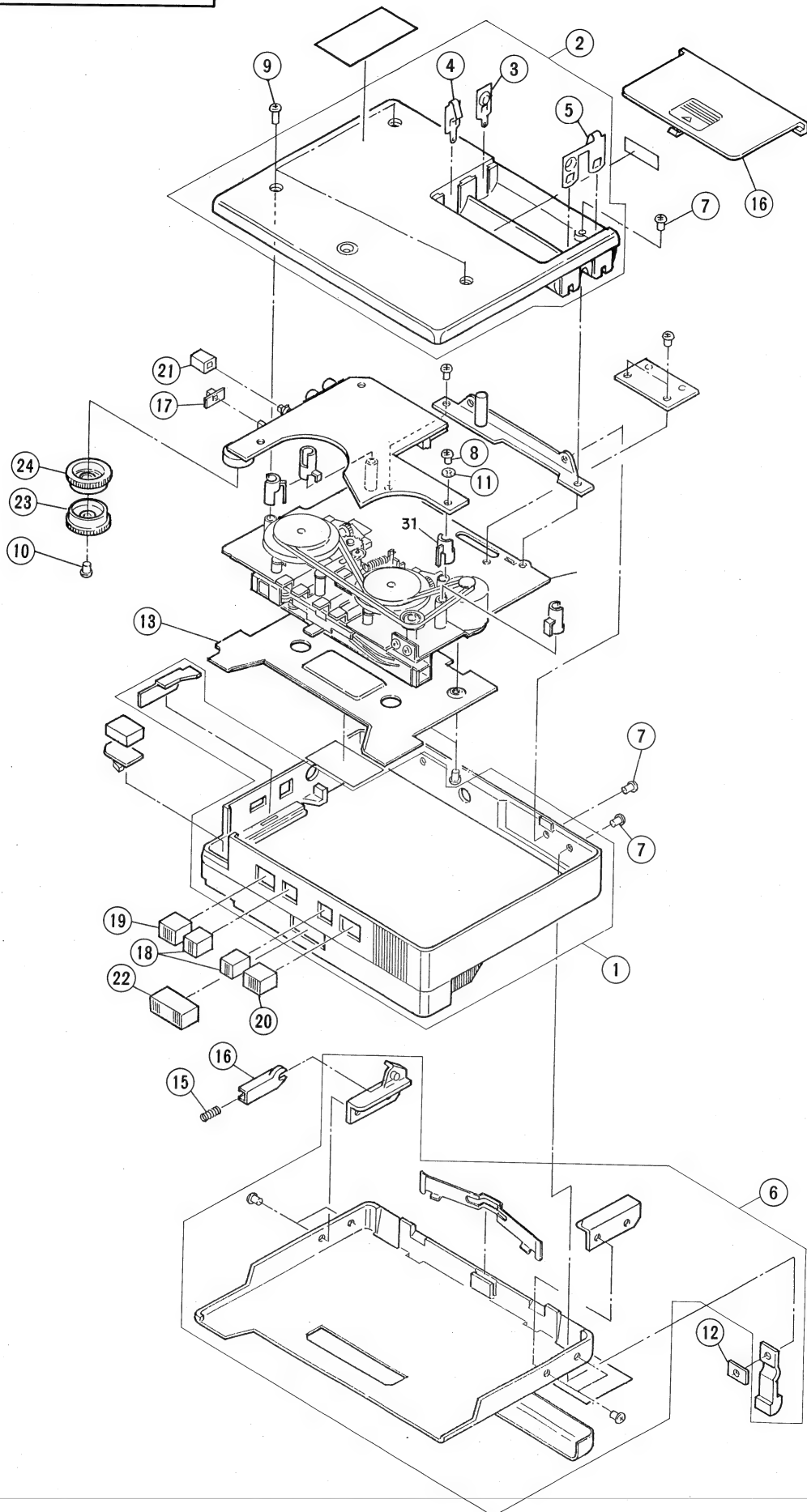
REF. NO.	Parts No.	DESCRIPTION
2-1	BA-749506	PC AMP BLK PM-R1
2-U1	EI-749433	IC BA3304
2-U2	EI-749434	IC BA5204
2-U51	EI-749432	IC AN6612S
2-Q1	ET-749437	TR 2SC2412 BR
2-Q2	ET-749436	TR 2SC2411 CR
2-Q3	ET-749437	TR 2SC2412 BR
2-Q51	ET-749435	TR 2SA881 P,Q
2-VR1	EV-749439	VR ROTARY
2-RV51	EV-749438	R S-FIX H V6EK-PV2 B
2-S2	ES-749441	SW SLIDE
2-S3	ES-749440	SW PUSH
2-J1,2	EJ-709029	HEADPHONE (A) J
2-J3	EJ-749442	DC JACK HEC0737
2-LD1,2	ED-749444	D LED PG5552T RED
2-LD3	ED-749443	D LED LN222RP RED

3. FINAL ASSEMBLY BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
3-1G	BC-749460	FRAME BLK G
3-1S	BC-749461	FRAME BLK S
3-1R	BC-749462	FRAME BLK R
3-2G	BC-749465	BOTTOM CASE BLK G
3-2S	BC-749466	BOTTOM CASE BLK S
3-2R	BC-749467	BOTTOM CASE BLK R
3-3	EZ-749305	TERMINAL (+)
3-4	EZ-749308	TERMINAL (-)
3-5	EZ-749309	TERMINAL (+ -)
3-6G	BD-749470	LID CASSETTE BLK G
3-6S	BD-749471	LID CASSETTE BLK S
3-6R	BD-749472	LID CASSETTE BLK R
3-7	ZS-394525	BID20x03STL NI3
3-8	ZS-355601	BID20x05STL NI3
3-9	ZS-484918	PAN20x08STL NI3
3-10	ZS-749301	BID10x03STL BNI
3-11	ZW-463408	TW50
3-12	ZW-749325	PLATE NUT
3-13	SP-749307	LID DECORATION PLATE
3-14	ZG-749310	SP LID
3-15	ZG-749311	SP GUIDE
3-16G	SP-749299	LID BATTERY G
3-16S	SP-749312	LID BATTERY S
3-16R	SP-749313	LID BATTERY R
3-17	SK-749316	KNOB TONE
3-17S	SK-749300	KNOB TONE S
3-18	SK-749317	KNOB FF/REW
3-18S	SK-749302	KNOB FF/REW S
3-19	SK-749318	KNOB PROGRAM
3-19S	SK-749303	KNOB PROGRAM S
3-20	SK-749319	KNOB STOP
3-20S	SK-749304	KNOB STOP S
3-21	SK-749320	KNOB MUTE
3-21S	SK-749314	KNOB MUTE S
3-22	SK-749321	KNOB PLAY
3-22S	SK-749315	KNOB PLAY S
3-23	SK-749322	KNOB VR (L)
3-24	SK-749323	KNOB VR (R)
3-24S	SK-749324	KNOB VR (R) S

SYMBOL FOR COLOR VARIATION
G – GOLD
S – SILVER
R – RED

FINAL ASSEMBLY BLOCK



4. MODEL FAM-1 FINAL ASSEMBLY BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
4-1x	EJ-749477	CONTACT BLK (J)
4-2x	ZS-749478	T1PAN20x06STL BNI
4-3x	ZS-749479	T1PAN20x04STL CMT
4-4x	EE-749480	BAR ANTENNA
4-5x	MZ-749481	GEAR A
4-6x	MZ-749482	GEAR TABLE
4-7x	BA-749483	PC TUNER BLK (X2) (EXCEPT J)
4-7Jx	BA-749476	PC TUNER BLK (X1) (J)

TUNER P.C BOARD

4-U101	EI-749494	IC TA7335F
4-U102	EI-749496	IC TA7687F
4-U201	EI-749495	IC TA7342F
4-Q101	ET-749497	TR 2SC2458 Y,OR,GR
4-Q102	ET-749498	TR 2SK161 GR
4-Q103	ET-706062	TR 2SA1048 O,RY
4-Q104	ET-749497	TR 2SC2458 Y,OR,GR
4-D101,102	ED-706055	D SILICON MA150
4-LD101	ED-749493	D LED TLG124
4-LD201	ED-315498	D LED TLR124 RED
4-RV201	EV-749499	R S-FIX H EVN-A6T 103
4-S201,202	ES-706071	SW SLIDE
4-CT101	EC-749485	C S-FIX
4-CT102	EC-749484	C S-FIX 6PF-MAX BLUE (EXCEPT J)
4-CT102J	EC-749485	C S-FIX (J)
4-CT103	EC-749484	C S-FIX 6PF-MAX BLUE
4-CT104	EC-749486	C S-FIX
4-VC101	EE-749488	VC AIR (X2) (EXCEPT J)
4-VC101J	EE-749487	VC AIR (X1) (J)
4-CF101,102	ER-706053	FILTER CE
4-CF103	ER-749489	FILTER CE
4-FL101,101J	ER-749492	FILTER B.P.F (X2) (EXCEPT J)

5. MODEL ASE-M1 ASSEMBLY BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
5-1	AX-780134	EAR PAD (BROWN) ASE-M1
5-2	AX-780135	EAR PAD (RED) ASE-M1

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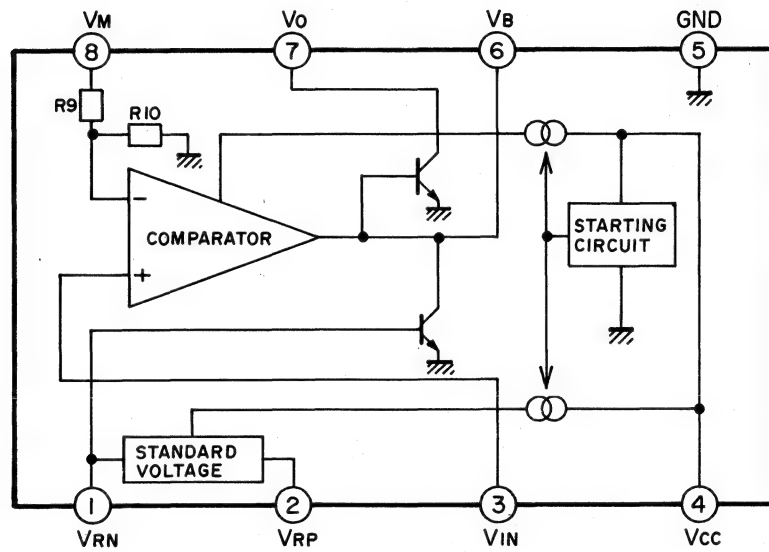
PARTS NO.	REF. NO.	PARTS NO.	REF. NO.	PARTS NO.	REF. NO.	PARTS NO.	REF. NO.
AX-780134	5-1	MZ-749336	1-36				
AX-780135	5-2	MZ-749337	1-37				
BA-749476	4-7JX	MZ-749356	1-2				
BA-749483	4-7X	MZ-749359	1-12				
BA-749506	2-1	MZ-749360	1-15				
BB-749505	1-1	MZ-749361	1-16				
BC-749461	3-1S	MZ-749362	1-17				
BC-749460	3-1G	MZ-749481	4-5x				
BC-749462	3-1R	MZ-749482	4-6x				
BC-749465	3-2G	SK-749300	3-17S				
BC-749466	3-2S	SK-749302	3-18S				
BC-749467	3-2R	SK-749303	3-19S				
BD-749470	3-6G	SK-749304	3-20S				
BD-749471	3-6S	SK-749314	3-21S				
BD-749472	3-6R	SK-749315	3-22S				
BM-749431	1-18	SK-749316	3-17				
EC-749484	4-CT102	SK-749317	3-18				
EC-749484	4-CT103	SK-749318	3-19				
EC-749485	4-CT101	SK-749319	3-20				
EC-749485	4-CT102J	SK-749320	3-21				
EC-749486	4-CT104	SK-749321	3-22				
ED-315498	4-LD201	SK-749322	3-23				
ED-706055	4-D102	SK-749323	3-24				
ED-706055	4-D101	SK-749324	3-24S				
ED-749443	2-LD3	SP-749299	3-16G				
ED-749444	2-LD1	SP-749307	3-13				
ED-749444	2-LD2	SP-749312	3-16S				
ED-749493	4-LD101	SP-749313	3-16R				
EE-749480	4-4X	ZG-749310	3-14				
EE-749487	4-VC101J	ZG-749311	3-15				
EE-749488	4-VC101	ZG-749339	1-50				
EI-749432	2-U51	ZG-749340	1-51				
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EI-749434	2-U2	ZG-749342	1-53				
EI-749494	4-U101	ZG-749343	1-54				
EI-749495	4-U201	ZG-749344	1-55				
EI-749496	4-U102	ZG-749345	1-56				
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EJ-709029	2-J1	ZG-749347	1-58				
EJ-749442	2-J3	ZG-749348	1-59				
EJ-749477	4-1X	ZG-749349	1-61				
ER-706053	4-CF102	ZG-749350	1-62				
ER-706053	4-CF101	ZG-749351	1-63				
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ES-749447	1-77	ZS-484918	3-9				
ET-706062	4-Q103	ZS-749301	3-10				
ET-749435	2-Q51	ZS-749363	1-86				
ET-749436	2-Q2	ZS-749429	1-84				
ET-749437	2-Q3	ZS-749430	1-88				
ET-749437	2-Q1	ZS-749478	4-2x				
ET-749497	4-Q104	ZS-749479	4-3x				
ET-749497	4-Q101	ZS-749501	1-91				
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EV-749438	2-RV51	ZW-305546	1-100				
EV-749439	2-VR1	ZW-329299	1-112				
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EZ-749305	3-3	ZW-381644	1-99				
EZ-749308	3-4	ZW-463408	3-11				
EZ-749309	3-5	ZW-749325	3-12				
HP-749446	1-79	ZW-749364	1-113				
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MT-342044	1-110						
MV-749355	1-13						
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SECTION 3

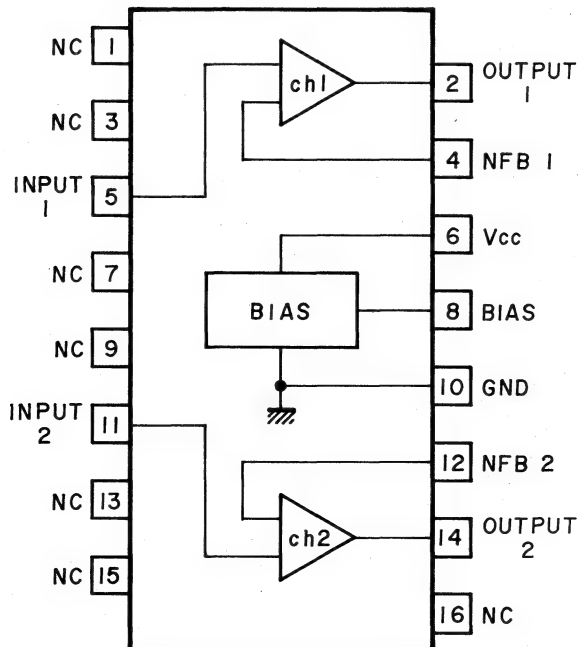
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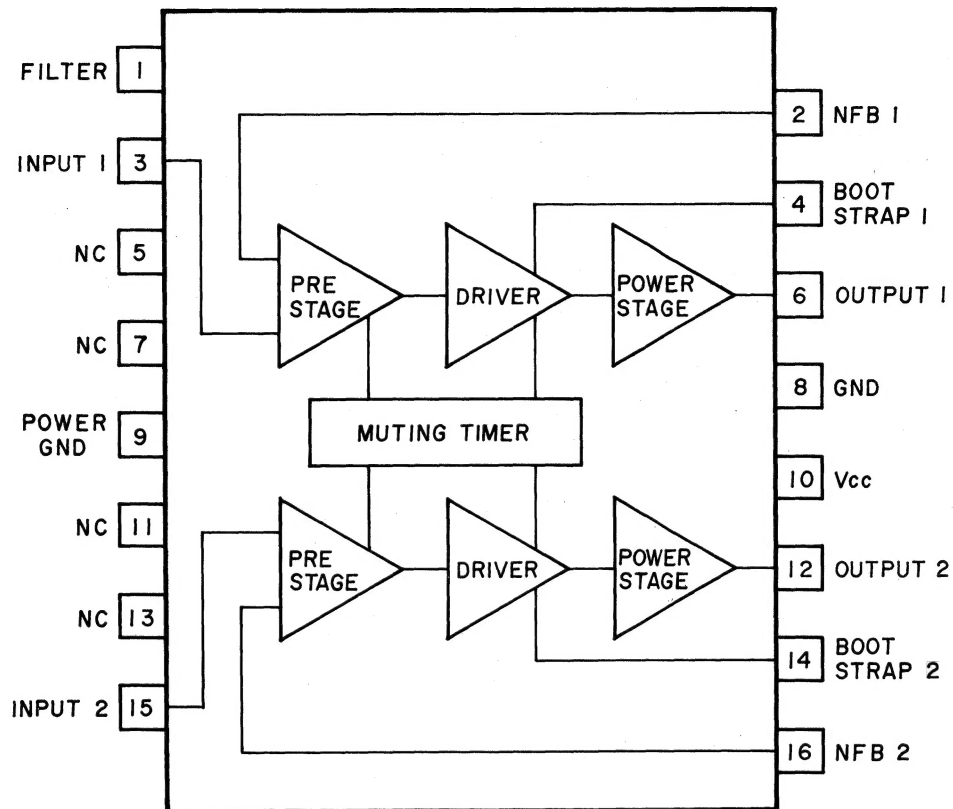
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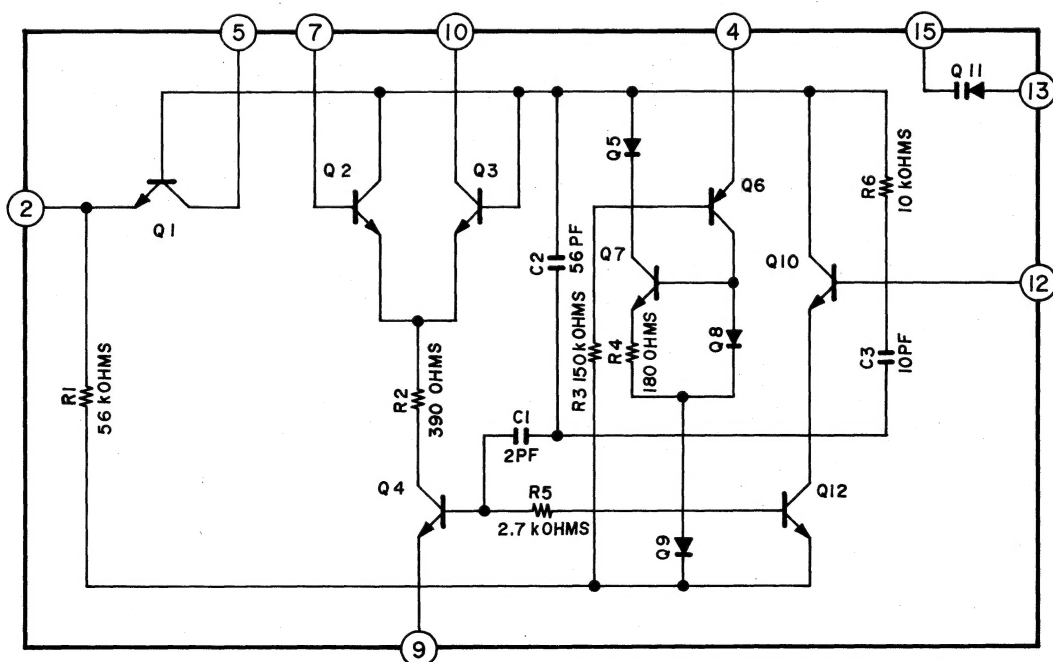
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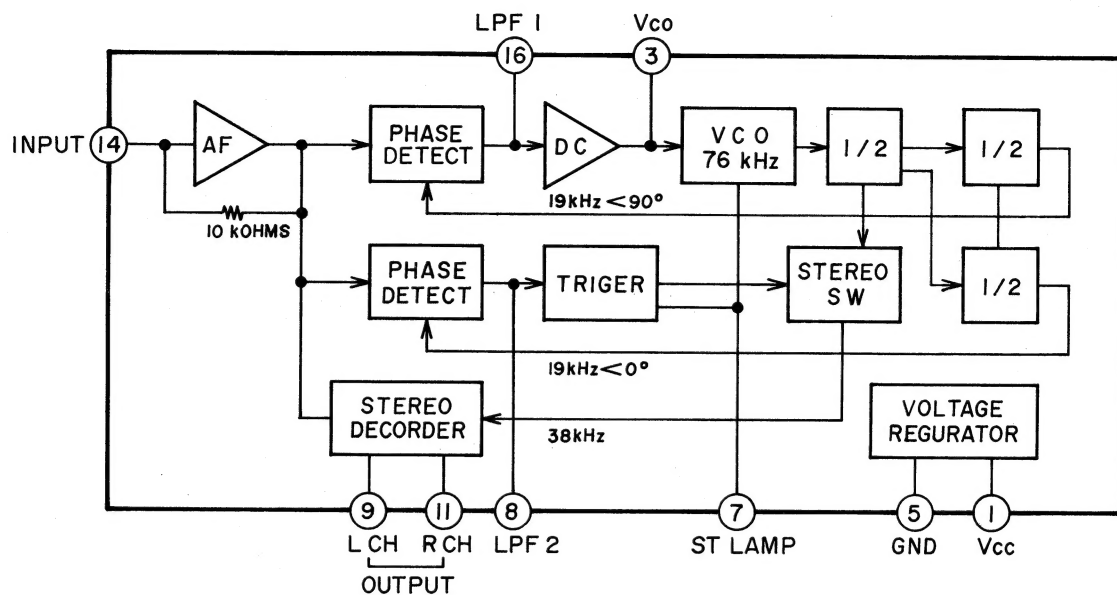
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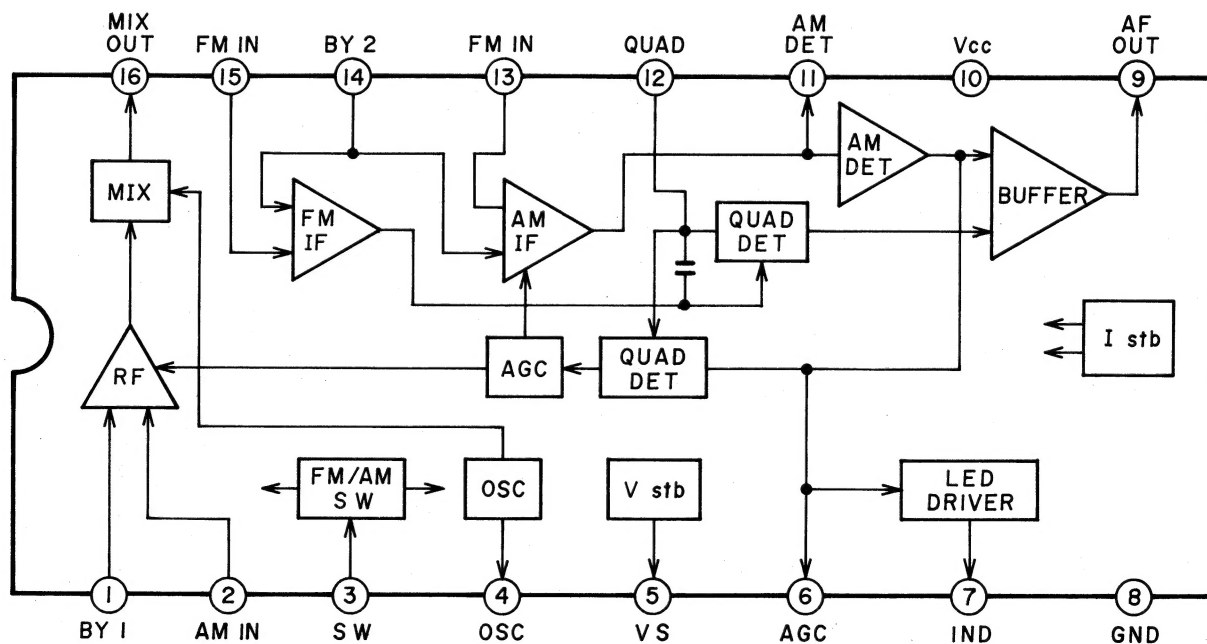
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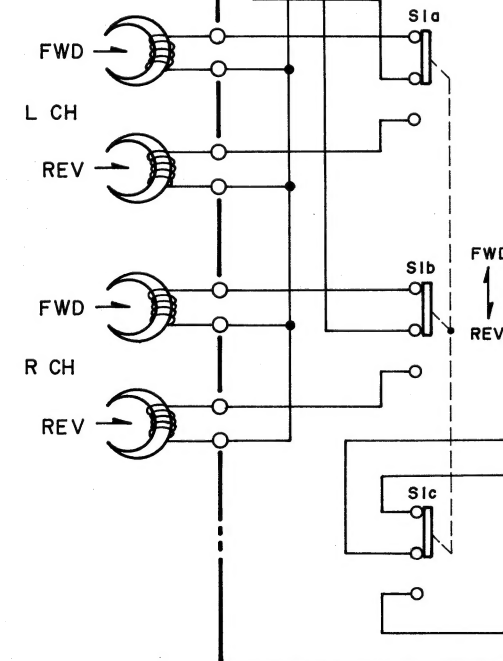
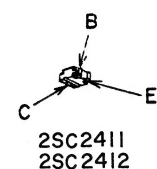
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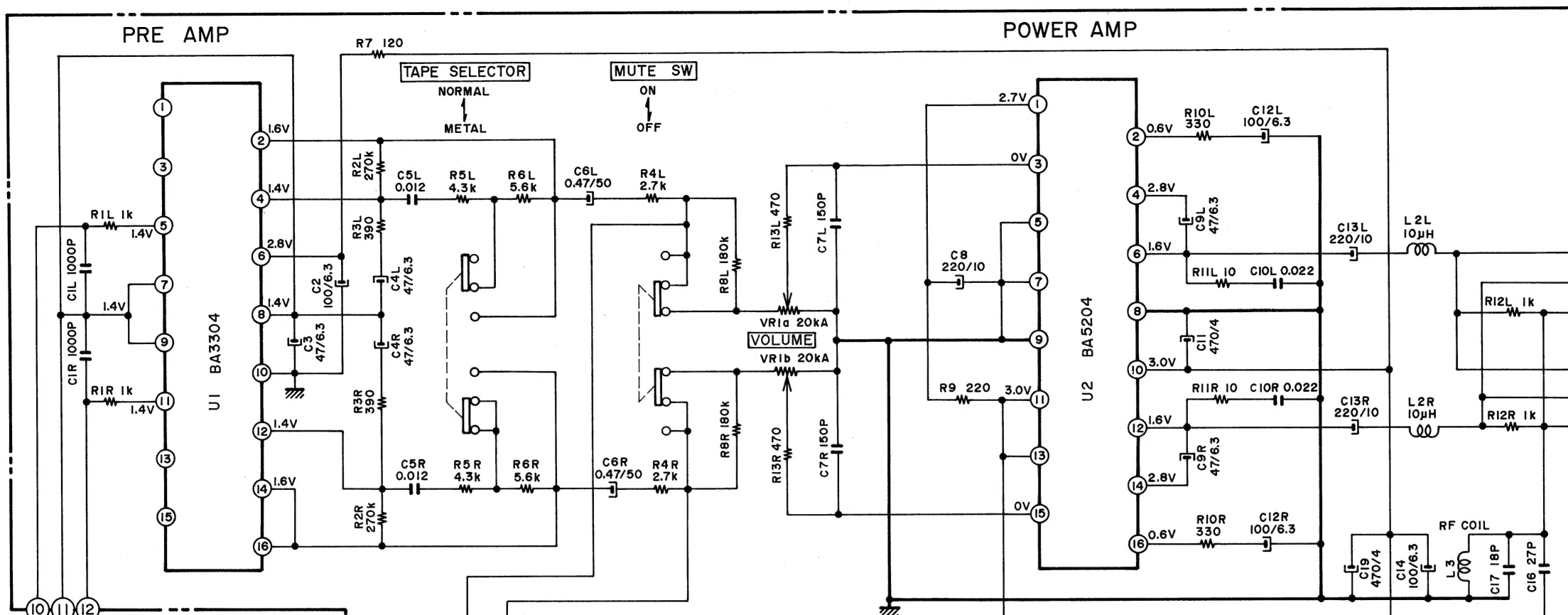
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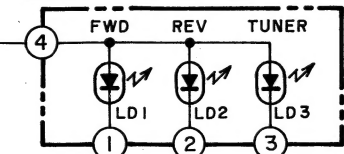


FLEXIBLE PCB



TERMINAL (A) PCB PSZZI58E0W

LED PCB PSLDI67A0Y

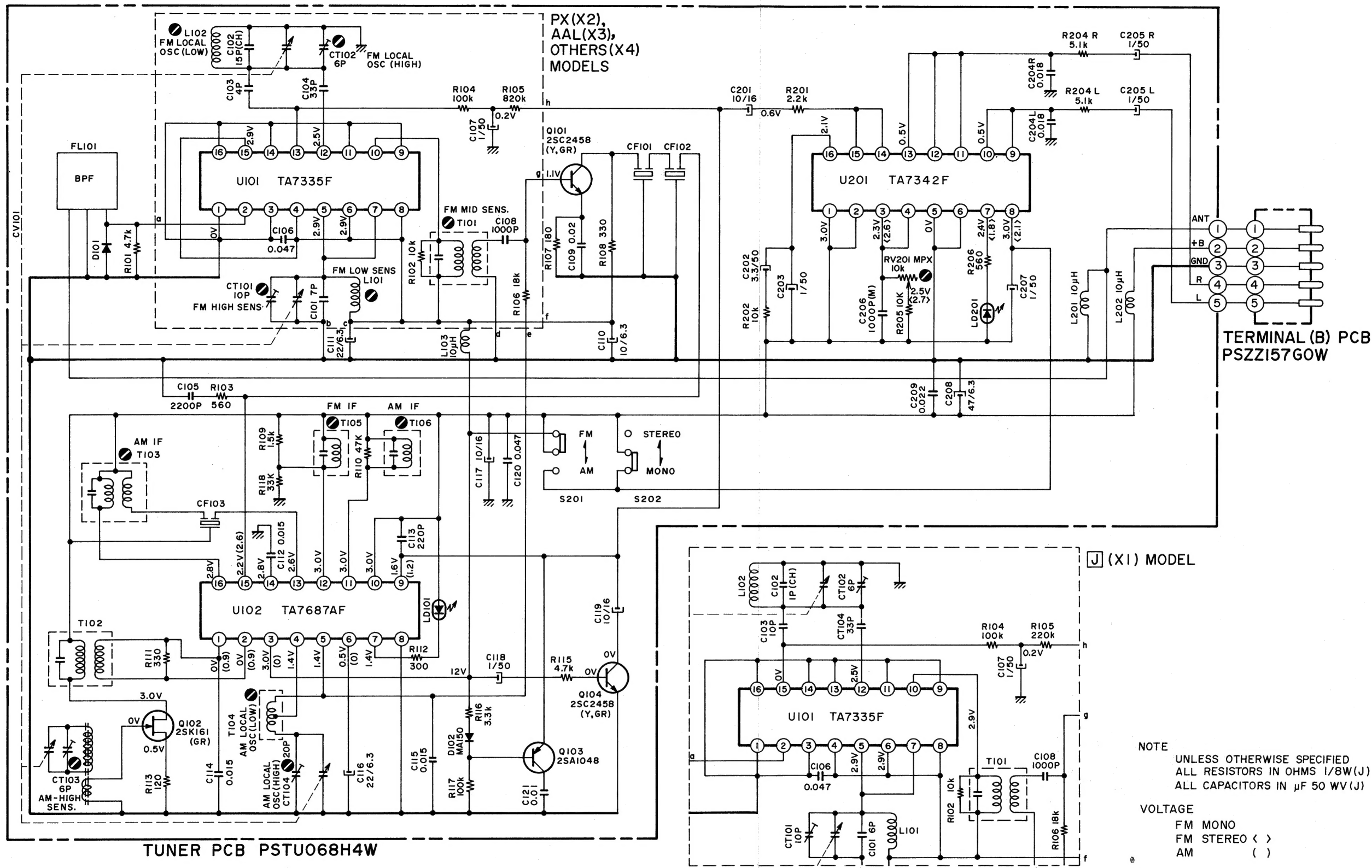


AMP PCB P̄SAB013A0Y

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/8W(J)
ALL CAPACITORS IN μ F 50 WV(J)

(CASSETTE PLAYER)
PM-R1 AMP
SCHEMATIC DIAGRAM
No. 830401A

FAM-I



(TUNER PACK)
FAM-I TUNER
SCHEMATIC DIAGRAM
No. 830402A